



PATENT Attorney Docket No. RBN-001DV

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS:

Keene et al.

GROUP NUMBER:

1636

SERIAL NUMBER:

10/629,453

CONFIRMATION NUMBER:

5725

FILING DATE:

July 29, 2003

EXAMINER:

Maria Marvich

TITLE:

METHODS FOR ISOLATING AND CHARACTERIZING ENDOGENOUS

mRNA-PROTEIN (mRNP) COMPLEXES

CERTIFICATE OF FIRST CLASS MAILING UNDER 37 C.F.R. 1.8

I hereby certify that this correspondence, and any document(s) referred to below, is/are being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 21st day of March, 2005.

Datad.

Brenda T. Kowalczuk

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Submitted herewith is/are:

Transmittal (1 pg.); Revocation of Power of Attorney with New Power of Attorney and Change of Correspondence Address (2 pgs.); Copies of the Notice of Recordation of Assignment Documents from Jack D. Keene, Craig C. Carson and Scott A. Tenenbaum to Ribonomics, Inc. (17 pgs.); this Certificate of First Class Mailing and a return receipt postcard.

			Application	Serial Number		10/629,453	
			Filing Date			July 29, 2003	
	Transmittal	-	First Named	Inventor		Jack D. Keene	
	Transmittal	E	Group Art U	nit		1636	
	Commissioner for latents	3	Confirmation	n Number		5725	
	P.O. Box 1450 Alexandria, VA 223 3-1450	3 2005	Examiner Na	ime		Maria Marvich	
	Alexandria, VA 223 3-1450	E	Attorney Do	cket Number		RBN-001DV	
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					■ Revocation of Power of		
Executed Declaration and		☐ Transmittal of Formal			Attorney, Change of		
	Power of Attorney for Utility or	Drawing(s) ☐ Total Sheets of Drawings		Correspondence Address			
	Design Patent Application				Additional Enclosure(s) (please identify below) 1. Copies of the Notice of Recordation of		
	Sequence Listing submission	Request for Continued		Assignment Documents from Jack D.			
	☐ Paper Copy/CD		Examination (RCE) Transmittal		Keene, Craig C. Carson and Scott A.		
	☐ Computer Readable Copy				Tenenbaum to Ribonomics, Inc.		
	Statement verifying identity of above	Notice of Appeal to Board of Patent Appeals and Interferences					
	identity of above						
		☐ Appeal Brief (in triplicate)					
	CD(s) for large table or computer	☐ Amendment After Allowance					
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	☐ Form PTO-1449						
	☐ Copies of IDS Citations]		
CORRESPONDENCE ADDRE			ESS		SIGNATURE BLOCK		
		Worcester LLP Office Square		Respectfully submitted, Date: March 21, 2005		Respectfully submitted,	
One Post C Boston, M.						partito	
	Tel. No.: (6	617) 338-2800 617) 338-2880		Reg. No.: 43,153 Tel. No.: (617) 338-2952 Fax No.: (617) 338-2800		Diana M. Steel, D. Phil.	
	Fax No.: (6					Attorney for Applicants Sullivan & Worcester LLP	
						One Post Office Square	
II .						Boston, MA 02109	

PTO/SB/82 (09-03)

Approved for use through 11/30/2005. OMB 0651-0035

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Application Number **Application Number** 10/629,453 July 29, 2003 REVOCATION OF POWER OF Filing Date **ATTORNEY WITH** First Named Inventor Jack D. Keene NEW POWER OF ATTORNEY Art Unit 1645 AND NGE OF CORRESPONDENCE ADDRESS **Examiner Name** Not yet assigned Attorney Docket Number RBN-001DV

I hereby revoke all previous powers of attorney given in the above-identified application.							
A Power of Attorney is submitted herewith.							
OR	OR						
I hereby appoint the practitioners associated with the Customer Number: 44966							
Please change the c	orrespondence address for the above-i	identified	application to:				
The address associa	ited with Customer Number: 4496	<u> 66</u>					
OR							
Firm or Individual Name Docketing Assistant Sullivan & Worcester LLP							
Address	One Post Office Square						
Address							
City	Boston	State	MA	Zip	02109		
Country	USA	,		••			
Telephone	(617) 338-2800	Fax	(617) 338-2880				
I am the:							
Applicant/Inventor.							
Assignee of record of the entire interest. See 37 CFR 3.71.							
Statement under 37 CFR 3. 73(b) is enclosed. (Form PTO/SB/96)							
SIGNATURE of Applicant or Assignee of Record Name Christopher B Kelly Zitle: President							
Caristopher 5. reny flate.							
Signature Www.							
Date	/	elephone	(919) 544	1-1023	Ext. 2117		
NOTE: Signatures of all the inventors of required, see below.*							
• Total of forms are submitted.							



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PTO/SB/96 (08-03)

STATEMENT UNDER 37 CFR 3.73(b) Applicant/Patent Owner: Jack D. Keene, Scott A. Tenenbaum and Craig C. Carson Application No./Patent No.: 10/629,453 Filing/Issue Date: 7-29-03 Tile of Application: Methods For Isolating and Characterizing Endogenous mRNA-Protein (mRNP) Complexes Ribonomics, Inc., a Corporation (Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.) states that it is: 1. 🗵 the assignee of the entire right, title, and interest; or 2. an assignee of less than the entire right, title and interest. _% in the patent application/patent identified above by The extent (by percentage) of its ownership interest is virtue of either: A. [X] An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 014848, Frame 0427, Reel 014866, Frame 0421, and Reel 014866, Frame **0405**, or for which a copies thereof are attached. OR A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown B. [] below: 1. From: To: The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached. The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached. 3. From: The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached. [] Additional documents in the chain of title are listed on a supplemental sheet. [] Copies of assignments or other documents in the chain of title are attached. [NOTE: A true copy of the original assignment must be submitted to the Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08] The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee. Date (919) 544-1023 Ext. 2117 Telephone number President

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JULY 14, 2004

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TESTA, HURWITZ & THIBEAULT, LLP
PATENT ADMINISTRATOR
HIGH STREET TOWER
125 HIGH STREET
BOSTON, MA 02110

UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 01/02/2004

REEL/FRAME: 014848/0427

NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

KEENE, JACK D.

DOC DATE: 12/23/2002

ASSIGNEE:

RIBONOMICS, INC. P.O. BOX 13169 RESEARCH TRIANGLE PARK NORTH CAROLINA 27709

DOROTHY WILLIAMS, PARALEGAL ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS

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Name Jack D. Keene	12/23/02
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Receiving Party	Mark if additional names of receiving parties attached
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Address (line 1) P.O. Box 13169	States, an appointment of a
Address (line 2)	domestic representative is attached. (Designation must
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Address (line 3) Research NC	27709 Assignment)
Triangle Park State/Country	Zip Code
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Box Assignment, Director of the United States Patent and Trademark Office, Washington, D.C. 20231

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•		Page 2	PATENT			
Correspondent l	Name and Address Area Co	s de and Telephone Number (617) 248-7000				
Name	Patent Administrator					
Address (line 1)	Testa, Hurwitz & Thib	eault, LLP				
Address (line 2)	High Street Tower					
Address (line 3)	125 High Street					
Address (line 4)	Boston, MA 02110					
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Application Nun Enter either the	nber(s) or Patent N Patent Application Numbe	lumber(s)	rk if additional numbers attached umbers for the same property).			
10/629,453	Application Number	er(s) Patent	Number(s)			
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Fee Amount	Fee	e Amount for Properties Listed (37 CFR 3.41	\$ 40.00			
Method of Payment: Enclosed ☑ Deposit Account ☐ Deposit Account (Enter for payment by deposit account or if additional fees can be charged to the account) Deposit Account Number # 20-0531						
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Diana M. Steel, R	 	Dan MoStax	12/30/03			
name of	Person Signing	Signature	Date			

ASSIGNMENT

WHEREAS, I, Jack D. Keene, Ph.D. ("Assignor"), have invented one or more inventions described in the following applications (or provisional application):

- 1. Methods, Compositions and Kits for Structurally and Functionally Partitioning, Identifying and Characterizing Messenger RNA Subsets, Serial No. 60/173,338, filed in the United States Patent and Trademark Office on December 28, 1999;
- 2. Methods for Isolating and Characterizing Endogenous mRNA-Protein (mRNP) Complexes, Serial No. PCT/US00/35583, filed December 28, 2000; and
- 3. Methods for Isolating and Characterizing Endogenous mRNA-Protein (mRNP) Complexes, Serial No. 09/750,401, filed in the United States Patent and Trademark Office on December 28, 2000.

WHEREAS, Ribonomics, Inc. ("Assignee"), a corporation organized and existing under the laws of the State of Delaware, and having a usual place of business at P.O. Box 13169, Research Triangle Park, NC 27709-3169, desires to acquire an interest therein, in accordance with agreements duly entered into with me;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and for Six million-four-hundred-seventy-thousand-five-hundred-ninety-one (6,470,591) shares of Assignee's common stock, par value \$0.001 per share, the receipt of which is hereby acknowledged, I, do hereby sell, assign and transfer unto said Assignee, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such Letters Patent as may issue thereon or claim priority under United States law or international convention, including but not limited to nonprovisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such Letters Patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and Letters Patent to be held and enjoyed by said Assignee for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made; I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. I hereby acknowledge that this assignment, being of my entire right, title and interest in and to said invention(s), carries with it the right in Assignee to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of Assignee's selection and the right to procure the grant of all Letters Patent to Assignee in its own name as assignee of my entire right, title and interest therein;

AND, I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said Assignee, its successors, assigns, and legal

Sole Assignment U.S. Serial Nos. 60/173,338, PCT/US00/35583, 09/750,401 Page 2 of 2

representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications;

AND, I hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved;

AND, I hereby authorize Assignee or its attorneys or agents to insert the correct serial number and filing date into this assignment, if none is indicated on the date of my execution of this assignment;

AND, I do hereby authorize and request the Director of the United States Patent and Trademark Office to issue such Letters Patent as shall be granted upon said application, or applications based thereon, to said Assignee, its successors, assigns, or legal representatives.

AND, this Assignment revokes and supersedes any previous assignments, whether written or oral, including but not limited to the assignment agreement dated October 19, 2000, between the parties with respect to the subject matter hereof and fully sets forth the entire agreement between the parties.

Inventor:

State/Commonwealth of County of Subscribed and sworn to before me, by the above-named Jack D. Keene, Ph.D. this day of Notary Public My Commission Expires: 929 03

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UNITED STATES PATENT AND TRADEMARK OFFICE

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TESTA, HURWITZ & THIBEAULT, LLP

PATENT DEPARTMENT

UNITED STATES PATENT AND TRADEMARK OFFICE

NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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RECORDATION DATE: 01/02/2004

REEL/FRAME: 014866/0421 NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS). DOCKET NUMBER: RBN-001DV

ASSIGNOR:

CARSON, CRAIG C.

DOC DATE: 11/21/2002

ASSIGNEE:

RIBONOMICS, INC. P.O. BOX 13169 RESEARCH TRIANGLE PARK NORTH CAROLINA 27709

SERIAL NUMBER: 10629453

PATENT NUMBER:

FILING DATE: 07/29/2003

ISSUE DATE:

TITLE: METHODS FOR ISOLATING AND CHARACTERIZING ENDOGENOUS MRNA-PROTEIN

(MRNP) COMPLEXES

014866/0421 PAGE 2

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Name (line 1) Ribonomics, Inc. Name (line 2) Address (line 1) P.O. Box 13169 Address (line 2) Address (line 3) Research NC	If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must							
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Name	Patent Administrator						
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Address (line 2)	High Street Tower						
Address (line 3)	125 High Street						
Address (line 4)	Boston, MA 02110						
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10/629,453	Application Numbe	Pat	ent Number(s)				
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		Authorization to charge additiona	al fees: Yes No				
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Diana M. Steel, R	eg. No. 43,153	D. M. H.	. 12/30/65				

Name of Person Signing

· F ..

Signature

ASSIGNMENT

WHEREAS, I, Craig C. Carson have invented one or more inventions described in an application for Letters Patent of the United States entitled:

Methods for Isolating and Characterizing mRNA-Protein (mRNP) Complexes

and identified by

Serial No. 09/750,401 filed in the United States Patent Office on December 28, 2000; and

WHEREAS, Ribonomics, Inc. (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the State of Delaware, and having a usual place of business at P.O. Box 13169, Research Triangle Park, NC 27709, desires to acquire an interest therein;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of eighty thousand (80,000) shares of ASSIGNEE'S Common Stock (which were issued on August 13, 2001, and with respect to which all repurchase rights of Assignee will vest on the date hereof) and twenty-five thousand dollars (\$25,000.00) to be paid to me by Assignee in five (5) equal installments, the first payable within ten (10) days of execution of this Agreement, the second payable within ten (10) days of January 1, 2003, the third payable within ten (10) days of February 1, 2003, the fourth payable within ten (10) days of March 1, 2003, and the fifth payable within ten (10) days of April 1, 2003, and of other good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such Letters Patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such Letters Patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made; I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. I hereby acknowledge that this assignment, being of my entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all Letters Patent to ASSIGNEE in its own name as assignee of my entire right, title and interest therein;

AND, I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional,

Sole Assignment U.S. Serial No. 09/750,401 Page 2 of 2

substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications;

AND, I hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved;

AND, I hereby authorize ASSIGNEE or its attorneys or agents to insert the correct serial number and filing date into this assignment, if none is indicated on the date of my execution of this assignment;

AND, I do hereby authorize and request the Director of the United States Patent and Trademark Office to issue such Letters Patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my seal on the date set forth below.

Inventor: Craig C. Carson

State/Commonwealth of County of

.) ss

Subscribed and sworn to before me, by the above-named Craig C. Carson this day of the control of

Notary Public

My Commission Expires:

9/29/03

RECEIVED



JUL 27 United States Patent and Trademark Office

TESTA, HURWITZ & THIBEAUDIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE PATENT DEPARTMENT

JULY 19, 2004

PTAS

TESTS, HURWITZ & THIBEAULT, LLP DIANA M. STEEL - PATENT ADMINISTRATOR HIGH STREET TOWER 125 HIGH STREET BOSTON, MA 02110



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UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 01/02/2004

REEL/FRAME: 014866/0405

NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

TENENBAUM, SCOTT A.

DOC DATE: 11/21/2002

ASSIGNEE:

RIBONOMICS, INC. P.O. BOX 13169 RESEARCH TRIANGLE PARK NORTH CAROLINA 27709

SERIAL NUMBER: 10629453

PATENT NUMBER:

FILING DATE: 07/29/2003

ISSUE DATE:

TITLE: METHODS FOR ISOLATING AND CHARACTERIZING ENDOGENOUS MRNA-PROTEIN

(MRNP) COMPLEXES

014866/0405 PAGE 2

LENELL MACKALL, SUPERVISOR ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS

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Correspondent Name and Address							
	Area Code and Telephone Number (617) 248-7000						
Name Patent Administrator							
Address (line 1)	Address (line 1) Testa, Hurwitz & Thibeault, LLP						
Address (line 2)	High Street Tower						
Address (line 3)	125 High Street						
Address (line 4)	Boston, MA 02110						
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Statement and Signature							
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attached copy is a true copy of the original document. Charges to deposit account are authorized,							
as indicated herein.							
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Diana M. Steel, R	eg. No. 43,153	/ Wall N	12/30/03				
Name of	Person Signing	Signature	Date				

ASSIGNMENT

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Sole Assignment 'U.S. Serial No. 09/750,401' Page 2 of 2

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AND, I hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved;

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Inventor:

State/Commonwealth of County of) ss

Subscribed and sworn to before me, by the above-named Scott A. Tenenbaum this day of Notary Public My Commission Expires: 9/29/03